

ABSTRACT

An in-line mixing apparatus for the substantially continuous production of size to be supplied to a glass fiber forming process. The in-line mixing apparatus comprises a plurality of stages wherein the first stage is a static mixing device in which sizing components are carefully metered into a flow of water or other carrier fluid, and blended together. A second stage, hydrolyzer, connected to the first stage, provides a chamber in which the blended water and size materials are allowed to chemically react as they move therethrough. A second static mixing device may be connected to the output of the hydrolyzer if additional components need to be added, or if additional mixing of the materials blended in the first stage and reacted in the second stage is necessary. The output of the in-line mixing device may be piped directly to the size applicators of the respective fiber producing operations.